

PART II: REMARKS SUBMITTED UNDER 37 C.F.R. 1.111

The Examiner rejected pending claims 1-17 in the Final Office Action as obvious (35 U.S.C. §103) over DeFalco (U.S. Patent No. 5,088,848). In response, Applicant has made certain amendments to the claims and added claims 18-30. Applicant submits that the pending claims 1-30 are patentable over the cited art for the reasons discussed herein.

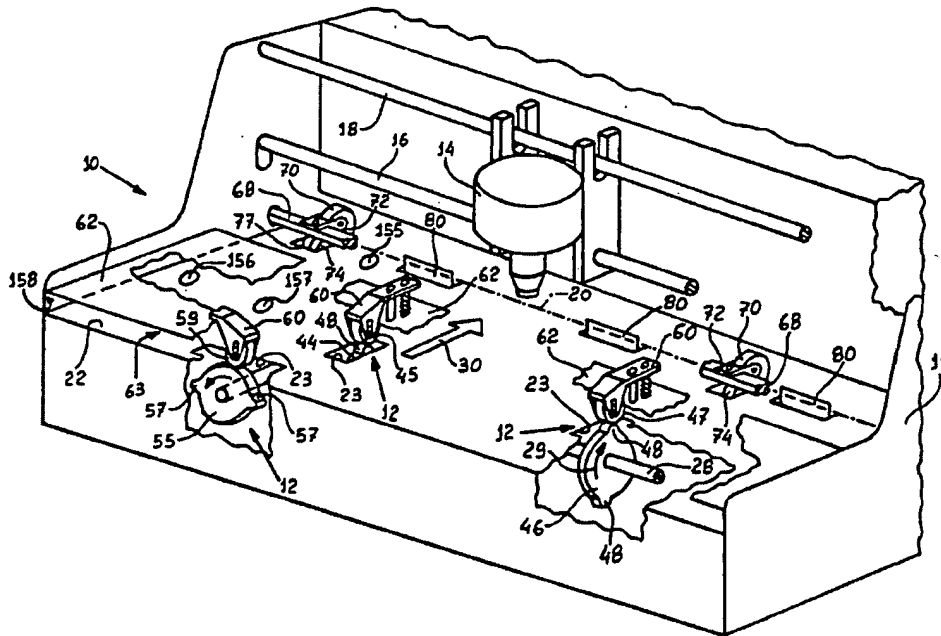
1. The Claims Are Patentable Over the Cited Art

Claims 2 and 10 concern a medium feeding apparatus for feeding a medium including at least one align roller to align a medium in a path. A feed assistance member includes a shaft and a feed assistance roller rotably mounted to the shaft and positioned to apply pressure on the medium in the path to stabilize the feed of the medium. The feed assistance member is not rotably connected to the align roller and the feed assistance roller is not vertically aligned with any align roller.

Claims 2 and 10 are amended to recite that the feed roller portion is not vertically aligned with any align roller to distinguish over DeFalco. This added requirement is disclosed in FIG. 1 of the Application which shows that the weight idler 110 is not vertically aligned with any of the align rollers 141, 143, and 151. See also, Application, pgs. 8-9.

The Examiner cited FIG. 3 of DeFalco as showing a feed assistance roller 55. (Final Office Action, pg. 2) According to DeFalco, the lobed rollers 44, 46, and 55 cooperate with counter rollers 45, 47, and 59 that apply weight to the top of the medium that is being fed by rollers 44, 46, and 55. (DeFalco, col. 2, lines 32-49) Rollers 44, 46, and 55 are moved by a rotating shaft. (DeFalco, col. 4, lines 34-41). However, FIG. 1 of DeFalco, reproduced below, shows that the rollers 44, 46, and 55 are vertically aligned with the idler rollers 45, 47, and 59 that apply weight to the paper being fed by rollers 44, 46, and 55.

C



Independent claim 2 and 3 require that the roller not be vertically aligned with the align rollers. The Examiner has not cited any part of DeFalco that teaches or suggests that the rollers 44, 46, and 55 are not vertically aligned with the idler rollers 45, 47, and 59. In fact, DeFalco describes just the opposite of this claim requirement because the rollers 45, 47, and 49 in DeFalco are vertically aligned with the transport rollers 44, 46, 55. For this reason, the claims are distinguished from DeFalco.

Moreover, the "Background Art" section of the Application specifically discusses the DeFalco patent. In discussing DeFalco, the Application mentions problems with the structure of DeFalco where the oval shaped align rollers can contact the idler rollers. (Application, pg. 3, lines 6-17) To address these problems, the Application discloses a roller arrangement shown in FIG. 1 where the feed roller 110 that applies weight to the paper is not vertically aligned with any of the align rollers 141, 143, and 151.

The Examiner found that the functional recitations of claims 2 and 10 are not given patentable weight because there are not supported by claim structure. (Final Office Action, pg.

C

2) Applicant traverses this rejection with respect to the amended independent claims because the structural requirements of amended independent claims 2 and 10 distinguish over DeFalco.

Added independent claim 18 recites a feed assistance apparatus for feeding a medium in a medium processing apparatus including at least one align roller for feeding the medium. A member portion contacts the medium being fed to increase a frictional force generated on the medium. The member portion is not rotably connected to the align roller and the member portion is not vertically aligned with any align roller.

As with claims 2 and 10, added claim 18 recites a feed assistance apparatus for feeding a medium where the member portion that contacts the medium is not vertically aligned with the member portion nor rotably connected to the align member. For the reasons discussed with respect to claims 2 and 10, claim 18 is distinguished over DeFalco because claim 18 require that the member portion contacting the medium is not vertically aligned with any of the align rollers.

Claims 3-9 and 11-17 are patentable over the cited art as they depend from claims 2 and 10, which are patentable over the cited art for the reasons discussed above. Claims 3, 7, 12, and 16 provide further grounds of patentability over the cited art.

Claims 3 and 12 depend from claims 1 and 10 and further recite one vertical align roller to align the medium in the vertical direction and a lateral align roller to align the medium in the lateral direction, wherein the feed assistance member is mounted between one lateral and one vertical align rollers. DeFalco, in FIG. 1, as discussed, shows the idler aligned vertically with respect to the align rollers. Thus, claims 3 and 12 provide further grounds of distinction over the cited art for their requirement that the feed assistance member is mounted between the lateral and vertical align rollers.

Claims 7 and 16 depend from claims 2 and 10 and further recite that the total weight of the feed assistance roller is applied onto the medium. The Examiner found the col. 2, lines 41-49 of DeFalco taught this requirement. (Final Office Action, pg. 3) Applicant traverses.

The cited col. 2, lines 41-49 of DeFalco mentions that the weight of the rollers and the friction of rubber 50 is sufficient to transport sheets of paper. Rubber 50 is the layer of rubber covering the lobes of the rollers 44, 46, 55 that transport the paper. (DeFalco, col. 2, lines 19-

C

21). This cited section nowhere mentions the claim requirement that the total weight of the feed assistance roller, or what DeFalco calls the rollers 45, 47, and 58, is applied onto the medium. Instead, DeFalco only mentions that the weight of the idler rollers and friction of the rubber 40 on the rollers that transport the paper, lobed rollers 44, 46, 55, is sufficient to permit the paper to move through the vertically aligned rollers. For these reasons, claims 7 and 16 provide further grounds of patentability over the cited art.

Added claims 19-30 are patentable over the cited art as they depend from claims 2, 10 or 18 which are patentable over the cited art for the reasons discussed above. Moreover, added claims 19-30 provide further grounds of patentability over the cited art.

Added claim 19 depends from claim 18 and further recites that the member portion is non-rotatable. The Application discloses that the feed assistance member can be non-rotatable on page 9, lines 2-4. Applicant submits that claim 19 provides further grounds of patentability over the cited art as the Examiner has not shown where DeFalco shows a non-rotatable member portion as claimed.

Added claim 20 depends from claim 18 and adds a shaft portion supported in a bracket and disposed through the member portion, wherein the member portion rotates around the shaft portion so as to move by a force from the medium, wherein the shaft portion is not rotably connected to the align roller. This limitation is substantially similar to the requirements found in claims 2 and 10 concerning the shaft portion and further patentable over the cited art for additional reasons discussed with respect to claims 2 and 10.

Added claim 21 depends from claim 18 and further requires that the at least one align roller comprises at least one vertical align roller to align the medium in the vertical direction and further comprising a lateral align roller to align the medium in the lateral direction. The member portion is mounted between one lateral align roller and one vertical align roller. This requirement is similar to the limitation found in claims 3 and 12 and further patentable over the cited art for additional reasons discussed with respect to claims 3 and 12.

Added claim 22 depends from claim 18 and further requires the align rollers have a non-circular cross section for feeding the medium. This requirement is similar to the limitation found

C

in claims 4 and 13 and further patentable over the cited art for additional reasons discussed with respect to claims 4 and 13.

Added claim 23 depends from claim 18 and adds the requirement that the member portion is aligned in the vertical direction with respect to medium movement. This requirement is similar to the limitation found in claims 5 and 14 and further patentable over the cited art for additional reasons discussed with respect to claims 5 and 14.

Added claim 24 recites that the medium is paper, which is similar to the limitation of claim 9.

Added claims 25, 27, and 29 depend from claims 18, 2, and 10 and further require that the roller or member portion does not contact any align roller when the medium is not contacting the roller portion. This added limitation is shown in FIG. 1 of the Application because the idler 110 would not contact any of the align rollers 141, 143, and 151 as the idler 110 is not positioned on the same vertical axis as any of the align rollers 141, 143, and 151.

Applicant submits that the Examiner has not shown where the art suggests the additional requirement of claims 25, 27, and 29. In fact, FIG. 1 of DeFalco shows that the rollers 44, 46, and 55 moved by the shaft are in contact with the rollers 45, 47, and 59. Accordingly, Applicant submits that claims 25, 27, and 29 provide additional grounds of patentability over the cited art.

Added claims 26, 28, and 30 depend from claims 18, 2, and 10 and further require that the at least one vertical align roller comprises two vertical align rollers and that the feed assistance member is mounted between the two vertical align rollers.

The added requirements of claims 26, 28, and 30 are disclosed in FIG. 1 of the Application which discloses that the idler 110, which corresponds, to the claimed feed assistance roller, is located between the vertical align rollers 141 and 143.

Applicant submits that the added requirements of claims 26, 28, and 30 are nowhere shown in DeFalco because DeFalco shows that the idler is aligned vertically with respect to the align rollers and not between two vertical align rollers as claimed.

C

PART III: VERSION WITH MARKINGS TO SHOW
CHANGES MADE TO CLAIMS

2. (Amended) A medium feeding apparatus comprising:

at least one align roller to align a medium in a path; and

a feed assistance member comprising:

(i) a shaft;

(ii) a feed assistance roller rotably mounted to the shaft and positioned to apply pressure on the medium in the path to stabilize the feed of the medium, wherein the feed assistance member is not rotably connected to the align roller, and wherein the feed assistance roller is not vertically aligned with any align roller.

3. (Amended) The medium feeding apparatus of claim 2, wherein the at least one align roller comprises at least one vertical align roller to align the medium in the vertical direction and further comprising a lateral align roller to align the medium in the lateral direction, wherein the feed assistance member is mounted between [the] one lateral align roller and one vertical align roller[s].

10. (Amended) A medium processing device including a medium feeding apparatus to feed the medium through a feed path in the processing device, wherein the medium feeding apparatus comprises:

at least one align roller to align a medium in a path; and

a feed assistance member comprising:

(i) a shaft;

(ii) a feed assistance roller rotably mounted to the shaft and positioned to apply pressure on the medium in the path to stabilize the feed of the medium, wherein the feed assistance member is not rotably connected to the align roller, and wherein the feed assistance roller is not vertically aligned with any align roller.

C

12. (Amended) The medium processing device of claim 10, wherein the at least one align roller comprises at least one vertical align roller to align the medium in the vertical direction and wherein the medium feeding apparatus further comprises a lateral align roller to align the medium in the lateral direction, wherein the feed assistance member is mounted between [the] one lateral align roller and one vertical align roller[s].

CONCLUSION

For all the above reasons, Applicant submits that the pending claims 2-30 are patentable over the art of record. Applicant submits herewith the fee for filing a CPA application and the fee for a Two-Month Extension of Time. Nonetheless, should any additional fees be required, please charge Deposit Account No. 50-0585.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

Dated: December 6, 2000

By: 

David W. Victor
Reg. No.: 39,867

Please direct all correspondences to:

David Victor
Konrad Raynes & Victor LLP
1180 South Beverly Drive, Ste. 501
Los Angeles, CA 90035
Tel: 310-553-7977
Fax: 310-556- 7984

C